CERTIFIED ASSOCIATE

Multiplatform Animation Using Adobe Animate CC (2019)

Adobe conducted research to identify the foundational skills students need to effectively communicate using digital media tools. Based on feedback from educators, design professionals, businesses, and educational institutions around the world, the objectives cover entry-level skill expectations for creating and designing dynamic animation. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, and is familiar with product features and capabilities, as well as relevant career concepts.

Individuals who have earned an Adobe Certified Associate certification have demonstrated mastery of the following skills. Detailed exam objectives are available on the Adobe Education Exchange.

1   Working in the Animation Industry

This objective covers critical concepts related to working with colleagues and clients as well as legal, technical, and design related crucial knowledge.

1.1   Identify the purpose, audience, and audience needs for preparing content.

    1.1a Determine whether content is relevant to the purpose, the audience, and audience need.

        i   Key Terms: client goals, target audience, demographics, accessibility, etc.

1.2   Communicate with colleagues and clients about design plans.

    1.2 a Demonstrate knowledge of techniques for communicating ideas about design plans with peers and clients.

        i   Key Terms: sketches, storyboards, specifications, wireframes, prototypes, iterations, drafts, feedback loop, project scope, scope creep, etc.

    1.2 b Demonstrate knowledge of basic project management concepts

1.3   Determine the type of copyright, permissions, and licensing required to use specific content.

    1.3 a Identify legal and ethical considerations for using third-party content such as copyright, permissions, and licensing.

        i   Key Terms: Creative Commons, public domain, intellectual property, derivative work, commercial use, attribution, work for hire, fair use/fair dealing, etc.

1.3b Demonstrate knowledge of interactive media.

    i   Key Terms: events, listeners, variables, dynamic text, JavaScript, ActionScript, methods, functions, classes, etc.

1.3c Understand and use key terms related to multiplatform animation.

    i   Key Terms: Apple iOS, Google Android, Microsoft Windows, Apple macOS, HTML5 Canvas, Adobe AIR, Adobe Flash Player, WebGL, Animated GIF, video, Sprite sheets, etc.

1.4 Demonstrate knowledge of basic design principles and best practices employed in industry.

1.4 a Communicate visually using the elements and principles of design and common design techniques.

    i   Key Terms: space, line, shape, form, color, texture, emphasis/focal point, unity/harmony, variety, balance, alignment, proximity, repetition, rhythm, scale, movement, negative space, gestalt, contrast, etc.

1.4 b Identify and use common typographic adjustments to create contrast, hierarchy, and enhanced readability.

    i   Key Terms: font, size, style, color, alignment, kerning, tracking and leading, horizontal and vertical scale, line length, etc.

1.5 Demonstrate knowledge of animation and interactive media principles.

1.5a Communicate visually using the elements and principles of design and common design techniques.

    i   Key Terms: space, line, shape, form, color, texture, emphasis/focal point, unity/harmony, variety, balance, alignment, proximity, repetition, rhythm, scale, movement, negative space, gestalt, contrast, etc.

1.5b Identify and use common typographic adjustments to create contrast, hierarchy, and enhanced readability.

    i   Key Terms: font, size, style, color, alignment, kerning, tracking and leading, horizontal and vertical scale, line length, etc.

1.6 Demonstrate knowledge of animation and interactive media principles.

1.6a Demonstrate knowledge of common animation principles.

    i   Key Terms: 12 basic principles of animation (squash and stretch, anticipation, staging, straight ahead action and pose to pose, follow through and overlapping action, slow in and slow out, arc, secondary action, timing, exaggeration, solid drawing, and timely appeal), etc.

1.6b Demonstrate knowledge of interactive media principles.

    i   Key Terms: user experience, user interface, user interaction, aesthetics, functionality, hierarchy, consistency, user accessibility, discoverability in UI, etc.

2 Project Setup and Interface

This objective covers the interface setup and program settings that assist in an efficient and effective workflow, as well as knowledge about incorporating digital assets for a project. .

2.1 Create a document with the appropriate settings for multimedia projects.

2.1 a Set appropriate document settings for a new project.

i   Key Concepts: document type, width and height, frame rate, background color, etc.

2.1 b Create a new document template for specific project needs.

i   Key Concepts: name, description, category, etc.

2.2 Customize the application workspace and use visual aids for layout.

2.2 a Identify and manipulate elements of the Animate interface.

i   Key Concepts: menus, Tools, Timeline, Stage, Pasteboard, Properties panel, Library panel, other panels, etc.

2.2b Organize and customize the workspace.

i   Key Concepts: Using/switching default workspaces, show, hide, group, and dock panels; use the workspace switcher and the Window menu; customize, save, and reset workspaces; etc.

2.2c Configure application preferences.

i   Key Concepts: General, Sync Settngs, Drawing

2.2d Navigate a document.

i   Key Concepts: pan, zoom, play, pause, keyboard/mouse shortcuts, spacebar, Rotation tool, Time Scrub tool, etc.

2.2e Use timeline tools.

i   Key Concepts: onion skin, loop, labels, frames, markers and marker range, keyframe navigation options, timeline zoom, etc.

2.2 f Use guides and grids.

i   Key Concepts: motion paths, classic motion guides; add, remove, and lock/unlock guides; set color; show and hide guides, grids and rulers; use snap or align options, etc.

2.3 Import into and manage assets in a project.

2.3a Import media from various sources.

i   Key Concepts: importing layers in .psd or .ai files, image files, audio files, video files, CC libraries, importing using menus or drag and drop, etc.

2.3b Manage assets in an Animate project.

i   Key Concepts: using the Library panel (rename, delete, move, duplicate, search and preview assets); updating and importing files; selecting unused items; creating new symbols and folders; working with multiple libraries; differentiating between Graphic symbols, Button symbols, and Movie Clip symbols, etc.

2.3c Load external media.

i   Key Concepts: XML, JSON, audio, video, images

ii   Writer's note: Keep this at a fundamental level

2.4 Manage colors, swatches, gradients, brushes, filter presets, and motion presets.

    2.4a Set the active fill and stroke color.

        i   Key Concepts: color picker, Color panel, eyedropper, hexadecimal value, alpha, Bitmap fill, etc.

    2.4b Create and customize a gradient.

        i   Key Concepts: Color panel, editing color and transparency stops, radial and linear gradients, Gradient Transform tool, etc.

    2.4c Create, manage, and edit swatches.

        i   Key Concepts: Swatches panel, swatch types (tagged, solid, bitmap, and gradient), color sets, etc.

    2.4d Create brushes, filter presets, and motion presets.

        i   Key Concepts: brushes (stroke, fill, types, width tool), filters (blur, glow, drop shadow, etc.), and motion presets (save previous motion tween settings as a preset), etc.

    2.4e Edit brushes, filter presets, and motion presets.

        i   Key Concepts: existing and custom brushes and presets

3 Organization Of Documents

This objective covers document structure such as layers and managing document structure for efficient workflow.

3.1 Manage layers.

        i   Key Concepts: add, delete, lock/unlock, duplicate, selecting, name/rename layers, toggle visibility, toggle outline mode, layer height, etc.

    3.1b Manage multiple layers.

        i   Key Concepts: creating, naming, deleting, and rearranging layer folders, keeping the Layers panel organized, Advanced Layers Mode, etc.

    3.1c Recognize the different types of layers in the Layers panel.

        i   Key Concepts: Normal, Mask, Masked, Folder, and Guide

    3.1d Manage content over time.

        i   Key Concerpts: frames, frame span, keyframes.

3.2 Modify layer visibility using transparency and masks.

    3.2a Adjust a layer's visibility and transparency.

        i   Key Concepts: hide/show individual layers or groups and adjust transparency

    3.2b Create, apply, and manipulate masks.

        i   Key Concepts: Mask layer, nesting masked layers, animate mask layer, etc.

4 Create and Modify Multimedia Elements

This objective covers core tools and functionality of the application, as well as tools that affect the presentation of document elements.

4.1 Use core tools and features to create and modify visual elements.

    4.1a Create vector graphics using a variety of tools.

        i   Key Tools: Drawing tools: Pen tool, Pencil tool, Paint Brush tool, Brush tool, Paint Bucket tool, primitive tools, shape tools, etc.

        ii   Key Concepts: Fill and stroke, object drawing mode

        iii   Note: Tool help can be found at https://helpx.adobe.com/animate/using/basic-tools.html

    4.1b Modify and edit vector graphics using a variety of vector tools.

        i   Key Tools: Free Transform tool, Gradient Transform tool, Width tool, Add Anchor Point tool, Delete Anchor Point tool, Convert Anchor Point tool, Pen tool, selection tools, etc.

4.2 Add and manipulate text using appropriate settings.

    4.2a Use type tools to add typography to a project.

        i   Key Tools: Text Tool, point vs. area type, Static Text vs Dynamic Text vs Input Text, etc.

        ii   Key Concepts: Difference between area type, point type, and static vs dynamic text must be understood.

    4.2b Adjust character settings.

        i   Key Settings: font, size, style, alignment, line spacing and indentation, horizontal and vertical type, anti-aliasing settings, etc.

    4.2c Adjust paragraph settings.

        i   Key Settings: Indention, alignment, paragraph spacing, etc.

    4.2d Convert text to graphics.

        i   Key Concept: Convert text to vector using break apart, convert to bitmaps, benefits/disadvantages, etc.

    4.2e Configure Dynamic Text and Input Text areas.

        i   Key Concepts: instance name, font selection, embedding type characters, etc.

4.3 Make, manage, and manipulate selections.

    4.3a Make selections using a variety of tools.

        i   Key Tools: Selection tool, Subselection tool, Lasso tool, Magic Wand tool, Polygon tool, etc.

    4.3b Modify and refine selections using various methods.

        i   Key Concepts: Keyboard modifiers, selecting multiple objects with selection tools or timeline, moving and grouping objects, Regular Selection tool vs Subselection tool, etc.

    4.3c Group or ungroup selections.

        i   Key Concepts: grouping/ungrouping selections, modifying grouped objects, entering a group, etc.

4.4 **Use basic techniques to manipulate digital graphics and media within an animation.**

4.4a Modify the document settings.

    i   Key Properties: width and height, units, stage color, frame rate, accessibility (ActionScript 3.0 only), etc.

    ii   Key Concepts: understanding how frame rate impacts timing and pacing, preparing documents at the proper size for intended use, etc.

4.4 b Rotate, flip, and transform objects, selections, groups, symbols, or graphical elements.

    i   Key Concepts: transform, align, distribute, and spacing, skew and rotate, 3D Translation and 3D Rotation (ActionScript 3.0 only), etc.

4.4c Use the camera to modify the view of the document.

    i   Key concepts: add/remove camera, rotate, pan, zoom, tint/color adjustments (ActionScript 3.0 only), etc.

4.4d Apply basic auto-correction methods and tools.

    i   Key Tools: optimizing, smoothing, straightening, etc.

4.4e Modify and edit vector graphics using a variety of vector tools.

    i   Key Tools: Eraser tool, converting lines to fill, expanding fill, combining objects with union, intersect, punch, and crop, etc.

4.4f Adjust appearance of objects and selections using various tools.

    i   Key Concepts: Fill and Stroke properties, variable width strokes, opacity, Eyedropper tool, vector and pattern brushes, etc.

4.4g Convert between bitmaps and vectors

    i   Key Concepts: Tracing bitmaps, converting vectors to bitmaps, setting color threshold, minimum area, corner threshold, curve fit, etc.

4.5 **Modify appearance of design elements using effects and graphic styles.**

4.5a Use Effects to modify symbols.

    i   Key concepts: Apply/remove filters, color effects, blending modes, etc.

4.5b Create, edit, and manage filter presets.

    i   Key Concepts: Add, remove, create, delete, and edit filter presets, etc.

4.6 **Create and modify animations.**

4.6a Apply and adjust transformations using keyframes.

    i   Key concepts: types of keyframes, adjusting properties using keyframes such as position, scale, rotation, skew, color, filter, etc.

4.6b Animate objects using frame-by-frame and tween techniques.

    i   Key concepts: keyframes, shape, motion, and classic, inverse kinematic (IK) tweens, onion-skinning, morphing, easing, armature, pose, motion editor, motion path, nesting, etc.

4.6c Use the proper symbol types for the intended purpose.

    i   Key concepts: movie clips, graphic, understanding when to use different symbol types, looping options, Frame Picker, etc.

ii   Must include: understanding that different symbol types have different internal timelines; understanding the relationship between symbol timeline and parent timeline, both dependently and independently

4.7 Add interactive or dynamic content to a document.

4.7a Add and modify interactive elements to your document.

i   Key Concepts: buttons, using movie clips for interactivity, and dynamic text; instance naming rules and conventions, etc.

4.7b Manipulate interactive text elements using code.

i   Key Concepts: input text, dynamic text

4.7c Add and modify code

i   Key Concepts: using the Actions panel, using ActionScript or JavaScript depending on document type, button states, Actions Wizard, Code Snippets panel, debugging code, referencing external content

4.8 Control and configure audio and video in a project.

4.8a Incorporate audio into a project.

i   Key concepts: Audio Sync Options (Start, Event, Stream), mono, stereo, Left/Right Channel, Fade In/Out, Fade Left to Right/Right to Left, Compression, MP3, Speech, ADPCM, RAW

4.8b Incorporatate video into a project.

i   Key concepts: FLV, F4V, MPEG-4, Adobe Media Encoder, encoding video, bitrate, Sorenson Spark, On2 VP6, FLVPlayback component (ActionScript 3.0), Video component (HTML 5), Video Import wizard

Publishing Digital Media

This objective covers saving and exporting documents or assets within individual layers or selections.

5

5.1 Prepare content for export to web, screen, and other digital devices.

5.1a Check document for errors and project specifications.

i   Key concepts: Debugging the project, testing movies, accessibility options, hidden layers, animation timing, testing multiple devices, project size in bytes, proofreading text, project dimensions, etc.

5.2 Export assets from an Animate document.

5.2a Save in native file formats for Animate (.fla or .xfl).

i   Save vs Save as…, file name and location, saving to CC library, Animate template, etc.

5.2b Export assets from an Animate document.

i   Key concepts: video, animated gif, image sequence,.svg, etc.

5.2c Publish final documents.

i   Key Concepts: document publish settings appropriate for the platform including file location and other settings specific to the platform, SWF, APP, EXE, AIR, HTML5, JS, APK, WebGL, publishing profiles.

NOTE: All key items (Key Terms, Key Tools, Key Concepts, and Key Settings) are examples and not a comprehensive list. Changes in the industry or application may necessitate coverage of items not listed that apply to the Target Candidate description for the Adobe Certified Associate program.

EXAM OBJECTIVES

Web Authoring Using Adobe Dreamweaver CC (2019)

Adobe conducted research to identify the foundational skills students need to effectively communicate using digital media tools. Based on feedback from educators, design professionals, businesses, and educational institutions around the world, the objectives cover entry-level skill expectations for web authoring. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, and is familiar with product features and capabilities, as well as relevant career concepts.

Individuals who have earned an Adobe Certified Associate certification have demonstrated mastery of the following skills. Detailed exam objectives are available on the Adobe Education Exchange.

1   Working in the Web Industry

This objective covers critical concepts related to working with colleagues and clients as well as crucial legal, technical, and design related knowledge.

1.1   Identify the purpose, audience, and audience needs for a website. .

1.1a Determine whether content is relevant to the purpose, the audience, and audience needs.

   i   Key Terms: client goals, target audience, demographics, accessibility, technical limitations, bandwidth, browsers, resolution, user interface, usability, user experience, business problem to be solved, expected results, etc.

1.2   Communicate with colleagues and clients throughout the project.

1.2a Demonstrate knowledge of techniques for communicating ideas about expected outcomes with peers and clients.

   i   Key Terms: sitemap, mood boards, style tiles, storyboarding, design comp, sketches, specifications, wireframes, prototypes, iterations, change orders, drafts, feedback loop, project scope, scope creep, platform requirements, code commenting, etc. Demonstrate knowledge of basic project management concepts.

1.2 b   Demonstrate knowledge of basic project management concepts.

   i   Schedule, budget, project goals, dependencies and prioritization, proposal, phased project planning, completion benchmarks, pair programming, project documentation, asset management, naming conventions, A/B testing, test plan, basic agile project management concepts, etc.

1.3 **Demonstrate an understanding of the type of permissions required to use specific content.**

    1.3a Identify legal and ethical considerations for using third-party   assets such as copyright, permissions, and licensing.

        i   Key concepts: Creative Commons, public domain, intellectual property, derivative work, commercial/non-commercial use, attribution, work for hire, fair use/fair dealing, etc.

    1.3b Identify when and how to obtain permissions in order to use code and content.

        i   Key concepts: model release, location release, media release, restricted location, stock assets, frameworks, code, templates, implications of using an asset hosted on a different site (hot-linking), etc.

1.4 **Demonstrate an understanding of key technologies related to web design and development.**

    1.4a Demonstrate fundamental knowledge of internet terminology.

        i   Key Terms: accessibility, absolute vs relative URL, site architecture, URL, web servers, TCP/IP, domain registration, DNS, web host, localhost, etc.

    1.4b Demonstrate fundamental knowledge of search engines and search engine optimization.

        i   Key Terms: SEO, keywords, metadata, alternate text, hierarchy, back links, best practices, indexing and crawling, sitemap, etc.

    1.4c Demonstrate fundamental knowledge of web security concepts.

        i   Key Concepts: Protocols (FTP/SFTP, HTTP/HTTPS, etc.), common malware types, firewalls, risk of linking to external content, DDOS, security needs, file permissions, spamming, CAPTCHA, etc.

    1.4d Demonstrate knowledge of key web development concepts.

        i   Key Concepts: use HTML for structure, use CSS for appearance; use JavaScript for behavior, server-side languages, frameworks, responsive vs adaptive web design, etc.

1.5 **Demonstrate knowledge of basic design principles and best practices employed in the industry.es.**

    1.5a Communicate visually using user interface elements and   design techniques.

        i   Key Concepts: symmetry, proximity, closure, continuity, balance, color theory, typography, grid system, hierarchy, etc.

    1.5b Identify user experience design techniques and practices.

        i   Key Concepts: usability, accessibility, consistency, user experience research, Hick's law, Fitt's law, discoverability, functionality, aesthetics, etc.

    1.5c Identify user interaction design techniques and practices.

        i   Key Concepts: navigation, mouse input, keyboard input, touch input, menus, controls, form elements, feedback (tooltips and validation), etc.

2 Project Setup and Interface

This objective covers the interface setup and program settings that assist in an efficient and effective wokflow.

2.1 Create a new site with the appropriate settings.

2.1 a Set appropriate options for defining a new site.

  i   Key Concepts: root folder, local/remote/testing sites, server technology, FTP settings, cloaking, version control, check-in/check-out process, GIT repositories, etc.

2.1 b Create a new page for specific project needs.

  i   Key Concepts: default page settings, starter templates, customizing templates for a site, DOCTYPE, document titles, frameworks, Bootstrap, etc.

2.2 Navigate, organize, and customize the application workspace.

2.2 a Identify and manipulate elements of the Dreamweaver interface.

  i   Key Concepts: Property Inspector, panels; Code view vs Design view vs Live view, toolbars, Status bar, etc.

2.2b Organize and customize the workspace.

  i   Key Concepts: tabbed documents; showing, hiding, nesting, and docking panels; saving and resetting workspaces; shortcuts and menus; etc.

2.2c Configure application preferences.

  i   Key Concepts: New Document, Code Hints, Fonts, Interface, Invisible Elements, File Types and Editing, Real-Time Preview, Extract, Site, Linting, etc.

2.3 Use non-visible design tools in the interface to aid in project workflow.

2.3a Configure content viewing options.

  i   Key Concepts: window size, magnification, orientation, real-time preview, etc.

2.3b Navigate a site.

  i   Key Concepts: navigating folder directories, nested folders, etc**.**

2.4 Manage assets in a project.

2.4a Add and organize assets.

  i   Key Concepts: Copying, pasting, moving, editing and deleting assets, including images, colors, URLs, scripts, snippets, and media using the Files panel, Assets panel and CC libraries, Extract assets from .psd, etc.

2.4b Configure assets in a project.

  i   Key Concepts: compressing assets, setting permissions, managing local and remote files using the Files panel, etc.

3 Organizing Content on a Page

This objective covers document structure and responsive design.

3.1 Organize page structure.

3.1 a View, edit, and manage the structure of a page.

    i   Key Concepts: DOM panel, DOM structure as it applies to element hierarchy (header, footer, nav, body, script, article, span, div), properly nesting elements, etc.

3.2 Apply responsive and adaptive design concepts.

3.2 a Design a web page that works well on multiple devices.

    i   Key Concepts: media queries, breakpoints, CSS measurement units, designing for multiple devices (different viewport sizes), Bootstrap framework templates, etc.

4 Working with Code to Create and Modify Content

This objective covers core technologies used to create web content.

4.1 Organize and display content using HTML.

4.1a Identify the appropriate use of <html>, <head>, <body>, and   <div> tags.

4.1b Differentiate between block and inline elements.

4.1c Format content using headings, paragraphs, and lists.

    i   Key Elements: <h1> through <h6>, <p>, <ol>, <ul>, <li>, <em>, <strong>, <br>, <blockquote>, <span>, etc.

4.1d Insert and manipulate images, video, and sound, and animation.

    i   Key Concepts: Inserting images, scaling images, adding alt text for accessibility and search engine optimization, inserting and configuring video and audio, etc.

    ii   Key Elements: <img>, <video>, <audio>

4.1e Create, manage, and edit hyperlinks.

    i   Key Concepts: Internal, external, absolute, relative, email, telephone, named anchors, target attribute, etc.

4.2 Apply table and semantic elements to describe content.

4.2a Display and organize information using tables.

    i   Key Elements: <table>, <tr>, <td>, <th>, <thead>, <tfoot>

4.2b Display and organize information using other basic semantic elements

    ii   Key Elements: <article>, <aside>, <nav>, <section>, <footer>, <header>, <main>, etc.

4.3 Style a web page using CSS

4.3a Configure initial page properties.

    i   Key Concepts: Page Properties dialog

4.3b Manage fonts.

    i   Key Concepts: font-family, default fonts, page fonts, font substitution list, etc.

4.3c Create and manage CSS rules using the CSS Designer panel.

    i   Key Concepts: Sources, @Media, Properties, and Selectors sections; enabling and disabling CSS rule properties, searching and filtering, etc.

4.3d Create and use inline styles, internal styles, and external style sheets.

    i   Key Concepts: Cascading order, importing style sheets (@import), etc.

4.3e Create and modify selectors that reference specific HTML elements.

    i   Selector Types: Id, class, tag, pseudo class, group, descendant, child selectors

4.3f Apply common CSS declarations

    i   Key Declarations: fonts, backgrounds, images, colors, box model, width, height, positioning, styles for button states, tabs, animated drop-down menus, etc.

4.3g Organize a web page layout with relatively and absolutely positioned div tags and CSS styles.

    i   Key Concepts: inserting a div tag in standard mode, modifying div tag attributes, and displaying overlapping content on a web page using div tags, etc.

4.4 Add interactivity using JavaScript

4.4a Create and manage forms.

    i   Key Concepts: identifying which form inputs are appropriate for collecting various types of information, inserting form elements on a page, methods used to transmit form data (GET, POST, action attribute), data validation, etc.

4.4b Add interactivity to a web page.

    i   Key Concepts: HTML5 canvas, JavaScript snippets, etc.

5 Publishing Digital Media

This objective covers saving and exporting entire documents in multiple formats and specific assets within the project.

5.1 Prepare project for publishing.

5.1a Set up for testing and publishing.

    i   Key Concepts: local site, remote site, testing server, web server, file transfer protocols (FTP, local/network, Secure FTP, WebDav, RDS), managing assets, links, and files, etc.

5.1b Check project for errors and project specifications.

    i   Key Concepts: spell check, creating a sitemap, HTML validation, usability and accessibility check, cleanup HTML, checking and updating links sitewide, testing live site to validate links and media, troubleshooting CSS issues by using visual aids, previewing in browser, Live View, code validation, etc.

5.2 Publish a web site.

    5.2a Save web pages.

        i   Key concepts: Save vs Save as…, file name and location, Save as template, etc.

    5.2b Publish a live site.

        i   Key concepts: Put/Get files to and from server, Check-in/check-out for team projects, refresh site files, dependent/associated files, cloaking files and folders, synchronizing local and remote sites, etc.

Visual Design Using Adobe Photoshop CC 2019

Adobe conducted research to identify the foundational skills students need to effectively communicate using digital media tools. Based on feedback from educators, design professionals, businesses, and educational institutions around the world, the objectives cover entry-level skill expectations for visual design. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, and is familiar with product features and capabilities, as well as relevant career concepts.

Individuals who have earned an Adobe Certified Associate certification have demonstrated mastery of the following skills.

1. Working in the Design Industry

This objective covers critical concepts related to working with colleagues and clients as well as crucial legal, technical, and design-related knowledge.

1.1 Identify the purpose, audience, and audience needs for preparing images.

1.1.a Determine whether content is relevant to the purpose, audience, and audience needs.

    i. *Key Terms: client goals, target audience, demographics, accessibility, etc.*

1.2 Communicate with colleagues and clients about design plans.

1.2.a Demonstrate knowledge of techniques for communicating about design plans with peers and clients.

    i. *Key Terms: sketches, specifications, wireframes, prototypes, iterations, change orders, drafts, feedback loop, project scope, scope creep, etc.*

1.2.b Demonstrate knowledge of basic project management concepts.

1.3 Determine the type of copyright, permissions, and licensing required to use specific content.

1.3.a Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.

    i. *Key Terms: Creative Commons, public domain, intellectual property, derivative work, commercial use, attribution, work for hire, fair use, fair dealing, etc.*

1.3.b Identify when and how to obtain permission to use images of people and locations.

    i. *Key Terms: model release, location release, etc.*

    ii. *Key Concepts: permission to use a photo is separate from permission to use a person's face or restricted location, etc.*

1.4 Demonstrate knowledge of key terminology related to digital images.

1.4.a Demonstrate knowledge of digital image terminology.

    i. *Key Terms: image resolution, image size, file types, pixel, raster, bitmap, vector, path, object, type, rasterizing, rendering, resampling, resizing, image size measured in pixels vs document size measured in inches/centimeters, etc.*

1.4.b Demonstrate knowledge of how color is created in digital images.

    i. *Key Terms: color mode, bit depth, gamut, CMYK vs. RGB vs. grayscale, etc.*

1.5 Demonstrate knowledge of basic design principles and best practices employed in the design industry.

1.5.a Communicate visually using the elements and principles of design and common design techniques.

  i. *Key Terms: space, line, shape, form, color, texture, emphasis/focal point, unity/harmony, variety, balance, alignment, proximity, repetition, rhythm, scale, movement, negative space, gestalt, etc.*

1.5.b Identify and use common typographic adjustments to create contrast, hierarchy, and enhanced readability/legibility.

  i. *Key Terms: font, size, style, color, alignment, kerning, tracking, leading, horizontal and vertical scale, line length, etc.*

1.5.c Demonstrate knowledge of common photographic/cinematic composition terms and principles

  i. *Key Terms: aspect ratio, rule of thirds, foreground, background, color, tone, contrast, cropping, depth of field, field of view, white balance, etc.*

2.   Project Setup and Interface

This objective covers the interface setup and program settings that assist in an efficient and effective workflow, as well as knowledge about ingesting digital assets for a project.

2.1 Create a document with the appropriate settings for web, print, and video.

2.1.a Set appropriate document settings for printed and onscreen images.

  i. *Key Concepts: width/height, orientation, artboards, resolution, color mode, bit depth, background, etc.*

2.1.b Create a new document preset to reuse for specific project needs.

2.2 Navigate, organize, and customize the application workspace.

2.2.a Identify and manipulate elements of the Photoshop interface.

  i. *Key Concepts: Options bar, menus, panels, toolbar, artboards, etc.*

2.2.b Organize and customize the workspace.

  i. *Key Concepts: tabbed documents; showing, hiding, nesting, and docking panels; saving and resetting workspaces; shortcuts and menus; etc.*

2.2.c Configure application preferences.

  i. *Key Concepts: Units & Rulers; Guides, Grids & Slices; Performance; Scratch Disks; Interface; etc.*

2.3 Use non-printing design tools in the interface to aid in design or workflow.

2.3.a Navigate a project.

  i. *Key Concepts: panning, zooming, rotating canvas, etc.*

2.3.b Use rulers.

  i. *Key Concepts: showing and hiding rulers, changing the measurement unit on rulers, etc.*

2.3.c Use guides and grids.

  i. *Key Concepts: adding/removing and locking/unlocking guides; setting color; showing/hiding guides and grids; using snap or align options; creating guide layouts; etc.*

2.4 Import assets into a project.

2.4.a Open or import images from various devices.

  i. *Key Concepts: file, camera, scanner, etc.*

2.4.b Place assets in a Photoshop document.

  i. *Key Concepts: embedded, linked, copy and pasted, etc.*

2.4.c Use the Adobe Camera Raw interface to process images.

  i. *Key Concepts: importing raw files, but only at a fundamental level.*

2.5 Manage colors, swatches, and gradients.

    2.5.a Set the active foreground and background color.

        i. Key Concepts: Color Picker, swatches, Eyedropper tool, hexadecimal value, etc.

    2.5.b Create and customize gradients.

        i. Key Concepts: Gradient panel, editing color and transparency stops, radial and elliptical gradients, etc.

    2.5.c Create and edit swatches.

2.6 Manage brushes, symbols, styles, and patterns.

    2.6.a Open and browse libraries of included brushes, symbols, graphic styles, and patterns.

    2.6.b Create and edit brushes, symbols, styles, and patterns.

3. Organizing Documents

This objective covers document structure such as layers, tracks, and managing document structure for efficient workflows.

3.1 Use layers to manage design elements.

    3.1.a Use the Layers panel to modify layers.

        i. Key Concepts: adding, deleting, hiding/showing, locking/unlocking, duplicating, and renaming layers, etc.

    3.1.b Manage layers in a complex project.

        i. Key Concepts: renaming layers, creating layer groups, deleting empty layers, keeping the Layers panel organized, etc.

    3.1.c Work with multiple layers.

        i. Key Concepts: selecting, grouping vs. linking, etc.

    3.1.d Flatten and merge layers.

        i. Key Concepts: tradeoffs with editability and file size, etc.

    3.1.e Recognize the different types of layers in the Layers panel.

        i. Key Concepts: background, regular, adjustment, type, fill, shape, vector, Smart Object, active/inactive (hidden), artboard layers, etc.

3.2 Modify layer visibility using opacity, blending modes, and masks.

    3.2.a Adjust a layer's opacity, blending mode, and fill opacity.

    3.2.b Create, apply, and manipulate masks.

        i. Key Concepts: layer masks, clipping masks, etc.

3.3 Understand the difference between destructive and nondestructive editing.

    3.3.a Nondestructive editing: Smart Objects, Smart Filters, and adjustment layers.

    3.3.b Destructive editing: painting, adjustments, erasing, and rasterizing.

4. Creating and Modifying Visual Elements

This objective covers core tools and functionality of the application, as well as tools that affect the visual appearance of document elements.

4.1 Use core tools and features to create visual elements.

    4.1.a Create images using a variety of tools.

        i. Key Tools: drawing tools, painting tools, Pencil tool, Brush tool, vector shapes, etc.

    4.1.b Modify and edit vector images using a variety of vector tools.

        i. Key Tools: shape tools, vector selection tools, etc.

4.2 Add and manipulate text using appropriate typographic settings.

4.2.a Use type tools to add typography to a design.
   - *i. Key Tools: Type tool, Vertical Type tool, etc.*

4.2.b Adjust character settings in a design.
   - *i. Key Concepts: using font, size, style, alignment, and color to enhance legibility, readability, hierarchy, etc.*

4.2.c Adjust paragraph settings in a design.
   - *i. Key Settings: kerning, tracking, leading, horizontal and vertical scale, line length, etc.*

4.2.d Convert text to graphics.
   - *i. Key Concepts: rasterizing type, etc.*

4.3 Make, manage, and manipulate selections.

4.3.a Make selections using a variety of tools.
   - *i. Key Tools: Quick Selection, Lasso tool, Magic Wand, marquee selection tools, etc.*

4.3.b Modify and refine selections using various methods.
   - *i. Key Concepts: keyboard modifiers, feather, expand, contract, inverse, selecting and masking, adding to and subtracting from selection, deselecting, etc.*

4.3.c Save and load selections.

4.4 Transform digital graphics and media.

4.4.a Modify the canvas or artboards.
   - *i. Key Tools: resizing, cropping, expanding, resampling, etc.*
   - *ii. Key Concepts: understanding the difference between resize and resample, etc.*

4.4.b Rotate, flip, and modify individual layers, objects, selections, groups, or graphical elements.
   - *i. Key Concepts: transforming, warping, distorting, skewing, etc.*

4.5 Use basic reconstructing and retouching techniques to manipulate digital graphics and media.

4.5.a Apply basic auto-correction methods and tools.

4.5.b Use various tools to repair and reconstruct images.
   - *i. Key Tools: healing tools, clone tools, Content-Aware tools, liquify, etc.*

4.5.c Evaluate or adjust the appearance of objects, selections, or layers using various tools.
   - *i. Key Concepts: adjustments, adjustment layers, histogram, opacity, Eyedropper tool, etc.*

4.5.d Apply photographic changes to images using tools and adjustments.
   - *i. Key Tools: Burn tool, Dodge tool, Smudge tool, Blur tool, Sharpen tool, Desaturate options, photo filters, etc.*

4.6 Modify the appearance of design elements by using filters and styles.

4.6.a Use filters to modify images destructively or non-destructively.
   - *i. Key Concepts: Smart Filters vs filters, etc.*

4.6.b Apply, modify, copy, and remove layer styles.

4.6.c Create, manage, and save custom layer styles.

5. Publishing Digital Media

This objective covers saving and exporting documents or assets within individual layers or selections.

5.1 Prepare images for export to web, print, and video.

5.1.a Check document for errors and project specifications.

    i. Key Concepts: setting color space, resolution, pixel dimensions, metadata, etc.

5.2 Export or save digital images to various file formats.

5.2.a Save in the native file format for Photoshop (.psd).

    i. Key Concepts: compatibility, saving as a copy, etc.

5.2.b Save in appropriate image formats for print or screen.

    i. Key Concepts: file format, bit depth, color space, resolution, pixel dimensions, etc.

5.2.c Export project elements.

    i. Key Concepts: exporting layers, exporting selections, exporting to files, exporting to libraries. etc.

NOTE: All key items (Key Terms, Key Tools, Key Concepts, and Key Settings) are examples and not a comprehensive list. Changes in the industry or application may necessitate coverage of items not listed that apply to the Target Candidate description for the Adobe Certified Associate program.

HTML and CSS

1. HTML Fundamentals

1.1 Construct markup that uses metadata elements

- script, noscript, style, link, meta tags (encoding, keywords, viewport, and description)

1.2 Construct well-formed page markup

- DOCTYPE declaration, html, head, body, proper syntax, closing tags and commonly used symbols

2. CSS Fundamentals

2.1 Analyze and implement inline styles, internal (embedded) style sheets, and external style sheets

- When to use inline styles, internal (embedded) style sheets, or external style sheets; precedence when using a combination of inline styles and style sheets

2.2 Construct and analyze rule sets

- Valid syntax for the CSS rule set, selectors (class, id, elements, and pseudo-class)

3. Document Structure using HTML

3.1 Construct and analyze markup to structure content and organize data

- Table tags (table, tr, th, td), h1-h6, p, br, hr, div, span, ul, ol, li

3.2 Construct and analyze markup that uses HTML5 semantic elements

- Semantic tags (header, nav, section, article, aside, footer, details, summary, figure, caption)

3.3 Construct and analyze markup that implements navigation

- target, anchor (a href), bookmark, relative vs. absolute links, navigating simple folder hierarchies, map, area

3.4 Construct and analyze markup that uses form elements

- Form attributes, action, method, submission methods, input types and restrictions, select, textarea, button, option, label

4. Multimedia Presentation using HTML

4.1 Construct and analyze markup that displays images

- img and picture elements and their attributes

4.2 Construct and analyze markup that plays video and audio

- video, audio, track, source, iframe

INFORMATION
TECHNOLOGY
SPECIALIST

5. Webpage Styling using CSS

5.1 Construct and analyze styles that position content

- Positioning (float, relative, absolute, static, and fixed) max-width, overflow, height, width, align, display, inline vs. block, visibility, box model, margins and padding

5.2 Construct and analyze styles that format text

- font-family, color, font-style, font-size, font-weight, font-variant, link colors, text formatting, text alignment, text decoration, indentation, line-height, word-wrap, and letter-spacing

5.3 Construct and analyze styles that format backgrounds and borders

- border-color, border-style, border-width, background properties, colors

5.4 Construct and analyze styles that create a simple responsive layout

- Units of measurement (percentages, pixels, em, vw, vh), viewport and media query, frameworks and templates, working with breakpoints, grids

6. Accessibility, Readability, and Testing

6.1 Construct well-formed HTML and CSS markup that conforms to industry best practices

- Reusing rules and rule sets, commenting, web-safe fonts, cross-platform usability, separation of structure (HTML) and style (CSS)

6.2 Apply accessibility principles and evaluate content accessibility

- Text alternatives, color contrast and usage, legibility of typography, tab order, text resizing, text hierarchy, translate

6.3 Evaluate the structural integrity of HTML and CSS markup

- Syntax errors, tag mismatch, cascading issues

INFORMATION
TECHNOLOGY
SPECIALIST

Exam Objectives for ESB V.2

Objective Domains

1. Entrepreneurial and Small Business Concepts

1.1 Identify the foundational concepts of entrepreneurship and small business ownership

- 1.1.1 Define entrepreneurship and small business
- 1.1.2 Classify types of businesses
- 1.1.3 Identify various legal structures of a business
- 1.1.4 Identify roles and responsibilities within a business
- 1.1.5 Define business compensation structures
- 1.1.6 Define business life cycle stages
- 1.1.7 Identify elements of the design thinking process

1.2 Identify knowledge and skills of a successful entrepreneur

- 1.2.1 Identify characteristics of an entrepreneurial mindset
- 1.2.2 Identify the risks, benefits, opportunities, and drawbacks of being an entrepreneur

1.3 Recognize potential business opportunities

- 1.3.1 Identify characteristics of a business opportunity
- 1.3.2 Determine the viability of a business opportunity

1.4 Identify the elements of a business plan

- 1.4.1 Identify the purposes and value of a business plan, pitch deck, and lean canvas
- 1.4.2 Define the key components of a business plan and pitch deck

1.5 Identify intellectual property concepts

- 1.5.1 Differentiate between trademarks, trade secrets, copyrights, and patents
- 1.5.2 Identify the value, risks, and guidelines associated with using licensed materials

2. Marketing and Sales

2.1 Interpret market research

- 2.1.1 Define target market, value proposition, and pricing
- 2.1.2 Distinguish between primary and secondary data
- 2.1.3 Evaluate competition
- 2.1.4 Complete a SWOT analysis

2.2 Analyze aspects of marketing processes

- 2.2.1 Identify marketing platforms
- 2.2.2 Apply marketing methods
- 2.2.3 Analyze market reactions and sales data
- 2.2.4 Analyze customer acquisition costs and retention costs
- 2.2.5 Identify elements of a marketing plan

ESB
Entrepreneurship
and Small Business

2.3   Identify sales channel strategies

2.3.1   Identify elements of a sales process

2.3.2   Identify key characteristics of digital and physical sales channels

2.3.3   Define various types of sales channels

2.3.4   Identify the role of customer service and support in sales strategies

3.   Production and Distribution

3.1   Identify the value of a Minimum Viable Product

3.1.1   Define elements of product/market fit hypothesis

3.1.2   Define performance/quality criteria

3.2   Identify supply chain and production processes

3.2.1   Identify the knowledge and materials needed to create a product or service

3.2.2   Identify production options for digital and physical products and services

3.2.3   Identify quality control testing processes for digital and physical products and services, including adherence to government regulatory and safety requirements

3.3   Identify distribution channels

3.3.1   Identify types and factors in the selection of distribution channels

3.3.2   Identify differences between direct distribution and fulfillment services

4.   Business Financials

4.1   Analyze business financials

4.1.1   Determine the selling price of a product or service

4.1.2   Interpret basic financial statements such as income sheets and balance sheets

4.1.3   Differentiate between fixed and variable costs

4.1.4   Analyze a company's cash flow

4.1.5   Calculate the ROI of a product or service

4.2   Analyze funding options

4.2.1   Determine operating budget and start-up costs

4.2.2   Identify various funding options

4.2.3   Identify requirements for obtaining funding

ESB
Entrepreneurship
and Small Business